

REMARKS

The acceptance by the Examiner of the drawings filed with the application on November 19, 2003, is noted with appreciation.

The acknowledgment by the Examiner of Applicants' claim of priority under 35 U.S.C. §119 and receipt of the certified copy of the priority document is also noted with appreciation.

Claims 1 to 10 are pending in the application. Claims 1 and 6 have been amended to more particularly point out the patentable novelty of the invention, and claims 2 and 7 have been amended to be independent form. The indication that claims 2 to 5 and 7 to 10 are drawn to allowable subject matter is noted with appreciation.

Claims 1 and 6 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication US 2003/0048768 to Nakamura et al. It is noted that in applying the reference to claim 1, the Examiner makes reference to "Kitami et al.", which are the applicants in this case, and, further, that the Examiner makes reference to "fig. [0012]". It is first of all understood that the Examiner meant to reference the Nakamura et al. publication, rather than Kitami et al., and the reference "fig. [0012]" should be read as "paragraph [0012]". With this understanding, the rejection is respectfully traversed for the reason that Nakamura et al. neither shows nor suggests the claimed invention.

The present invention relates to a wireless LAN (Local Area Network) base station that holds wireless communication with a plurality of client terminal stations, the number of which may vary over time as, for example, in an Internet Café. The problem addressed by the present invention is as follows: If the number of wireless LAN modules provided at the wireless LAN base station is determined according to the maximum estimated number of client terminal stations wirelessly connected to the wireless LAN base station, it is possible to deal with the change of the number of client terminal stations. This, however, disadvantageously consumes power if the number of client terminal stations decreases.

The present invention provides a wireless LAN base station and a communication control method at the wireless LAN base station capable of

accommodating all of the client terminal stations if the number of client terminal stations wirelessly connected to the wireless LAN base station increases and capable of reducing power consumption if the number of wireless client terminal stations decreases. As shown in the first embodiment illustrated in Figure 1, the wireless LAN base station 101 may comprise: a first wireless LAN module 105 capable of holding the wireless communication with at least one client terminal station, a second wireless LAN module 107 capable of holding the wireless communication with at least one client terminal station, and control means 109. The control means determines whether the number of the client terminal stations which are holding the wireless communication with the wireless LAN base station 101 is equal to or smaller than a predetermined number. The control means 109 controls all of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with the first wireless LAN module 105, controls the first wireless LAN module to be activated and controls the second wireless LAN module 107 to be deactivated, if a determination result of the determination is YES. Further, the control means 109 controls a part of the client terminal stations which are holding the wireless communication with the wireless LAN base station 101 to hold the wireless communication with the first wireless LAN module 105, controls the rest of the client terminal stations which are holding the wireless communication with the wireless LAN base station 101 to hold the wireless communication with the second wireless LAN module 107 and controls the first wireless LAN module 105 and the second wireless LAN module 107 to be activated, if the determination result is NO.

Thus, if there are a predetermined number of client terminal stations communicating with the wireless base station 101, the control means 109 activates the second wireless LAN module 107 but, otherwise, the second wireless LAN module is turned off, saving power at the wireless base station 101.

Nakamura et al. deal with an entirely different problem, and their solution to that problem is entirely different, in both structure and operation, to the claimed invention. More specifically, Nakamura et al. are concerned with information devices having two or more wireless modules and to the use and control of those

wireless modules. What Nakamura et al. mean by “information devices” are, for example, notebook type personal computers, such as shown in block diagram from in Figure 1. Thus, the “information device” of Nakamura et al. is the equivalent of a client terminal station in the disclosed and claimed invention, not a wireless LAN base station as claimed. Moreover, what Nakamura et al. describes with respect to Figure 1 is a notebook personal computer having both a Bluetooth wireless module and a wireless LAN module based on the IEEE 802.11b standard. This has become a fairly widespread and conventional arrangement in modern notebook personal computers. Nakamura et al. note that if both of these wireless functions simultaneously operate, they interfere with each other to decrease the communication speed because they both use the same 2.4 GHz ISM band. Therefore, Nakamura et al. provide the user of the notebook personal computer with the ability to disenable an unselected wireless device by directly controlling hardware.

With this understanding, it will be appreciated that Nakamura et al. has nothing to do with the design, construction and operation of a wireless base station as is claimed in the present application. Moreover, Nakamura et al. is concerned with disabling either the Bluetooth wireless module or the wireless LAN module in order to prevent interference between the two. This is quite different from activating and deactivating one of the wireless LAN modules of the base station, depending on the number of client terminal stations communicating with the wireless base station, as in the claimed invention.

In order to better define the patentable novelty of the claimed invention, claims 1 and 6 have been amended. Claim 1, as amended, recites “means for determining if a detected number of client terminal stations is equal to or smaller than a predetermined number” and “means for changing the number of active wireless LAN modules according to whether the detected number of the client terminal stations is equal to or smaller than the predetermined number.” Claim 6 has been similarly amended.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1 and 6 be allowed together with claims 2 to 5 and 7 to 10, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. Lamont Whitham", is written over the typed name.

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